UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,987	06/27/2001	Lane B. Schaller	1642.65606	3774

24978 7590 08/10/2005		EXAMINER
GREER, BURNS & CRAIN		SHAH, CHIRAG G
300 S WACKER DR		

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 08/10/2005

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
		09/892,987	SCHALLER, LANE B.
Office Action Summary		Examiner	Art Unit	
		Chirag G. Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 May 2005*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) *37-42* is/are allowed.
6) ☒ Claim(s) *1,19 and 20* is/are rejected.
7) ☒ Claim(s) *2-18* is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *27 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1 sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Response to Restriction Election

1.   Applicant's election of Group I, claims 1-20 and 37-42 in the reply filed on 5/23/05 is

acknowledged. Because applicant did not distinctly and specifically point out the supposed

errors in the restriction requirement, the election has been treated as an election without traverse

(MPEP § 818.03(a)).

2.   Claims 1-20 and 37-42 examined on the merit.

3.   Claims 21-36 and 43-52 are Non-elected.

Abstract

4.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

        The abstract should be in narrative form and generally limited to a single paragraph on a
separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed
150 words in length since the space provided for the abstract on the computer tape used by the
printer is limited. The form and legal phraseology often used in patent claims, such as "means"
and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist
readers in deciding whether there is a need for consulting the full patent text for details.

        The language should be clear and concise and should not repeat information given in the
title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"
"The disclosure defined by this invention," "The disclosure describes," etc.

5.   The abstract of the disclosure is objected to because the abstract exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1 and 19-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Weigand

(U.S. Patent No. 6,917,608) in view of Ogawa et al. (U.S. Patent No. 5,936,966), hereinafter

referred as Ogawa.

Regarding claim 1, Weigand discloses of a system timer **[system timer coprocessor 445,**

fig. 4] for controlling the timing at which communication device communicates **[system timer**

processor 445 provides all the timing based control information to permit the mobile

station 300 to synchronize to the TDMA GSM network, see col. 6, lines 39-43], said system

timer **[system timer coprocessor 445, fig. 4]** comprising:

a memory device **[microcode RAM 510, fig. 4]** adapted to store a set of software

instructions **[system timer 445 includes microcode RAM 510 stores frame program**

(codes are software), see fig. 4 and col. 7, lines 1-5];

a processor **[microsequencer 505, fig. 4]** coupled **[see fig. 4]** to said memory

device **[microcode RAM 510, fig. 4]**,

said processor **[microsequencer 505, fig. 4]** being adapted to execute any of said

software instructions in any of a plurality of sequences **[microsequencer 505 executes**

frame program instructions stored in the microcode RAM 510 in any program flow

instructions sequence JSR, RTS and JMP, see col. 7, lines 3-5, 57-61 and col. 8, lines

35-40], causing said processor [microsequencer 505, fig. 4] to generate a corresponding

set of control signals [see col. 7, lines 5-12, system timer also includes generating set

of control registers used to configure modes and control the operation of the timer],

each of said corresponding set of control signals [the system timer processor

445 provides all the timing based control information to the mobile station, see col.

6, lines 39-43] being adapted to enable communication by said communication device

[mobile station 300, see col. 6, lines 39-43] in one of a multiplicity of communication

formats [the system timer 445 is programmed via a microprocessor with a program

for each frame to control all (multiplicity) the physical layer protocols

(communication formats) and sub-system control during that frame, see col. 6, lines

43-46],

Weigand explicitly fails to explicitly disclose wherein each of said communication

formats (physical layer protocol/formats) defines the timing at which a set of data is

communicated by said communication device.

Ogawa discloses in col. 3, lines 44-50 of a data receiving device (i.e. mobile device) for

receiving each frame data together with its synchronizing signals based on physical layer

protocol (communication formats) and its protocol hierarchy from a network (communication

device). Furthermore as disclose in col. 3, lines 57 to col. 4, lines 6, synchronizing signals

included in the header of each physical layer protocol and its protocol hierarchy provide timing

information for the communication device (receiving device).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of

the invention to modify the teachings of Weigand to include the features of each of physical

layer communication protocol including data along with the synchronization signals in the

header for providing the receiving device with timing information as taught by Ogawa. One is

motivated as such in order to increase the communication processing speed for the data receiving

device to synchronize with the timings of signals received from the network.

Regarding claim 19, Weigand discloses in col. 6, lines 39-43 of a program to control all

(multiplicity) of the physical layer protocol (communication formats) during a frame. Weigand

discloses in fig. 3 and in col. 1, lines 35-40 that GSM utilizes TDMA channels for mobile

communications. Weigand further discloses in **col. 2, lines 30-38** each (single slot

communication format) slot comprises two 57-bit data blocks, which are used to carry data/voice

communication (multiplicity of voice or data communication formats) while the remaining bits

are used for control and synchronization (timing) purposes. Although, each slot mentioned

above is a part of a multi-slot communication frame, according to GSM, Global Systems for

Mobile Communications, a TDMA frame may inherently comprise of a multi-slotted or single

slotted communication format.

Regarding claim 20, Weigand discloses in col. 6, lines 39-43 of a program to control all

(multiplicity) of the physical layer protocol (communication formats) during a frame. Weigand

discloses in fig. 3 and in col. 1, lines 35-40 that GSM utilizes TDMA channels for mobile

communications. Weigand discloses in **fig. 2A** of a TDMA multiframe having a multi-slot

communication format, each slot 0-7 comprises two 57-bit data blocks, which are used to carry

data/voice communication (multiplicity of voice or data communication formats) while the

remaining bits are used for control and synchronization (timing) purposes. Note: according to

GSM, Global Systems for Mobile Communications, a TDMA frame may inherently comprise of

a multi-slotted or single slotted communication format.

Allowable Subject Matter

8.   Claims 37-42 allowed.

        Regarding claims 37, Prior Art fails to disclose a method for controlling the

timing at which a communication device communicates comprising a first processor and

system timer, the system timer comprising a second processor and memory device

adapted to store a set of software instruction comprising the step of causing the first

processor to define the sequences in which the second processor executes the software

instructions in combination with other limitations set forth in the respective claim.

9.   Claims 2-18 objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

        Regarding claim 2, Prior Art fails to disclose wherein the processor comprises a

first processor and further wherein the communication device comprises a second

processor wherein the plurality of sequences in which the first processor executes the

software instructions is controlled by the second processor in combination with other limitations set forth in the respective claim.

Regarding claim 16, Prior Art fails to disclose wherein the plurality of sequences further comprises a second sequence of the software instructions that when executed by the first processor, enable operation of the communication device in a second mode, and wherein the second is adapted to cause the first processor to switch between executing the first and second sequences thereby causing the communication device to switch between the first and second modes in combination with other limitations set forth in the respective claim.

Any response to this action should be faxed to:

(571)272-8300, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
August 8, 2005

Chirag Shah